



# Ecosystem

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### CEM's new logo



The Commission on Ecosystem Management has a new logo. The colours of the triangle represent different biotic and abiotic elements of the ecosystem. CEM signifies the human dimension of an ecosystem, which strives for a balance between conservation and sustainable use of the natural components to uphold the integrity of an ecosystem.

### CEM Steering Committee meeting – Hustai National Park, Mongolia, September 2009

The 29<sup>TH</sup> CEM Steering Committee Meeting was held from 7-9 September, 2009 at Hustai National Park, Mongolia. The Steering committee and Secretariat provided updates from all the regions on CEM's activities. The meeting records are available on [www.iucn.org/cem](http://www.iucn.org/cem). Contact [Patricia Hawes](mailto:Patricia Hawes)

A Steppe workshop was organised, in conjunction with the Steering Committee meeting to Prepare for the Central Asian Conference on Steppe Management in Response to Climate Change to be held in 2010 in Hustai National Park, Mongolia. See announcements and events section below.



### Update on CEM's Regions and Thematic Groups

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### International workshop on Ecosystem Services Indicators

UNEP-WCMC, in collaboration with WRI and CEM organised and hosted a workshop on Ecosystem Service Indicators from September 22<sup>nd</sup> - 23<sup>rd</sup>. Funded by SwedBio, the two day intensive workshop brought together 16 experts from all over the world in the fields of indicators and ecosystem services. The workshop focused on identifying a suite of ecosystem service indicators of policy relevance, and the datasets available/necessary to underpin them that can be applied within sub-global assessments and in monitoring at different scales. Participants reviewed a framework for ecosystem service indicators, identified candidate ecosystem service indicators (including data availability), spanning the full spectrum of recognised ecosystem services and developed an inventory of potential ecosystem service indicators. Based on the above discussions, participants formulated a set of recommendations on how to move forward the agenda on ecosystem service indicators. Key among these are the publication of a journal article based on the workshop proceedings, a follow-up workshop to prioritise indicators for further development, and the testing of indicators in different contexts and at different scales. A workshop report will be available shortly. For more information on the workshop and next steps, please contact: [Abisha Mapendembe](mailto:Abisha Mapendembe) or CEM representative [David Vackar](mailto:David Vackar)



### The South American Temperate Grasslands Network

The South American Temperate Grasslands Network is an informal network of representatives from governments, academy, NGO and field based organizations, aimed to improve the communication and cooperation regarding the conservation and sustainable use of temperate grasslands in South America. These include Pampas in the center of the continent and Patagonian Steppe in the southern cone. Tropical High mountain grasslands in the Andes (Puna and Páramo) are included as well, because of their cold climate controlled ecosystems and similar management challenges. The network was created in November 2008 during the first South American Workshop of the Temperate Grasslands Conservation Initiative (TGCI), a WCPA initiative focused initially on East Asia, South America, the Kazakh steppe and North American grasslands. In 2009, the network started an electronic exchange led

by the IUCN South America Regional Office. In August 2009, a second meeting was organized to develop a portfolio of projects for all four biomes, and as a way to establish partnerships with network members and other strategic organizations from the region. The network is coordinated by [Andrea Michelson](#) from IUCN SUR. Coordination with CEM is facilitated by [Robert Hofstede](#).

#### Increased Adaptive Capacity through Multiple Water Use

Community based fish culture in seasonal floodplain project under Challenge Program Water and Food (CPWF-[www.waterandfood.org](http://www.waterandfood.org)) investigates ameliorated fish productivity through multiple resource use. Seasonal floodplains retain water for 5-6 months during the wet and serve as private property for crop production during the dry months and a common resource pool while inundated. Traditional capture fisheries in seasonally poverty focused flooded areas of Mekong and Indo-Gangnetic basin complimented through communal fish culture intervention under appropriate low cost technological arrangements to improve productivity. Fish Water Productivity is quantified using ecological and socioeconomic field variables such as increased fish produce during wet season, subsequent increase in rice production in the following dry season. Improved productivity is recognized as an indicator of adaptive capacity that will help identify new directions to meet challenges of economic stability and food security for the poor through the changing climate scenario. Contact: [Nagabhatla, Nidhi](#)

#### Ecosystem-based restoration and climate change adaptation in New Mexico, USA

The Building Riparian Resilience through Beaver Restoration program is reintroducing the nearly extirpated keystone species, American beaver (*Castor canadensis*), with the goals of restoring degraded aquatic-riparian ecosystems and strengthening these ecosystems against coming climate change impacts. The program is directed by Seventh Generation Institute, a nonprofit conservation organization, the New Mexico Department of Game and Fish, and public and private land managers. The program has completed a spatial analysis that identifies priority areas for beaver reintroduction by combining modeled potential suitable beaver habitat, areas of highest biodiversity value and areas of expected greatest climate change threat. Also completed were initial stakeholder outreach efforts and a model beaver live-trapping and translocation. Planned future steps include additional translocations and work with stakeholders, targeted riparian vegetation restoration, deployment of beaver management techniques, development of an ecosystem services market, and monitoring. Additional information may be found at [www.seventh-generation.org](http://www.seventh-generation.org). Contact: [Cathryn Wild](#).



The Task Force on **Ecosystem Services and Management under the China Council for International Cooperation in Environment and Development (CCICED)**, a high-level policy forum reporting directly to China's State Council, held its Third Workshop in Bangkok, Thailand on 19-20 November 2009. The Task Force is undertaking a scenario analysis through which an improved understanding of the full value of ecosystems services in China can be developed, the potential contribution of these services to future national development can be assessed and policies and actions designed to enhance sustainable ecosystems service flows at national, provincial and local levels can be identified. The three scenarios are business as usual, planned development (based on current development plans) and ecosystems services optimization. The analysis will be supported by a series of local case studies from China and international case studies, provided by the Nature Conservancy. Contact [Spike Millington](#).

#### Feeding and fuelling the world sustainably

In 2050, around 9.2 billion people are currently forecast to inhabit our planet. Providing sufficient food in terms of quantity and quality in a sustainable manner is one of humanity's central challenges. A new report commissioned by Friends of the Earth, UK and Compassion in World Farming now shows that biomass demand for food strongly interacts with future bioenergy potentials. The new study, conducted by researchers of the Institute of Social Ecology at Klagenfurt University and PIK Potsdam reveals that feed demand of livestock is a central determinant of future bioenergy potentials. According to the new report, the potential to produce primary energy from biomass is between 60 and 160 EJ/yr, depending on future diets and agricultural intensity. Liquid biofuel potentials are drastically smaller. Richer diets result in lower bioenergy potentials. The report also demonstrates that harvesting more biomass for food and energy results in higher pressures on ecosystems; in particular the world's grazing lands. [Download](#). Contact: [Karlheinz Erb](#)



#### Samoa Tsunami - Integrated Tsunami Risk Assessment

On 29 September, 2009, a massive earthquake (Mw=8.0) and tsunami hit American Samoa, Samoa and Tonga, killing 189 people. CEM member Prof. Brian G. McAdoo travelled to Samoa as a member of the first interdisciplinary post-tsunami survey to assess the tsunami hazard alongside the coupled human-environment system's vulnerabilities. Many deaths occurred in the villages of Lalomanu and Satitooa despite the buffering coral reef as they were not able to escape to higher ground due to the wetlands behind the village. Yet coastal vegetation in front of other villages provided effective buffers, mitigating the damage. The coral in the lagoon had spotty damage where cyclone-generated debris moved by the tsunami rolled over colonies. Other colonies were seemingly untouched, and will help regenerate damaged areas, continuing to provide critical services including fisheries support, carbon sequestration, storm buffering, etc. Nearshore sediment deposited in the lagoon by the tsunami is being mined for building material, which may increase coastal erosion, making communities more vulnerable during the upcoming cyclone season.

Contact: [Brian G. McAdoo](#)

**Expert Meeting on effects of fishing on marine biodiversity**

The IUCN-CEM Fisheries Expert Group (FEG) has contributed to an activity organized jointly by FAO and UNEP, in collaboration with the CBD Secretariat. Following a decision by the Conference of the Parties to the Convention on Biological Diversity at its 9<sup>th</sup> meeting (Bonn, 19-30 May 2008), the CBD Secretariat and FAO collaborated to organise an Expert Meeting on the impacts of destructive fishing practices, unsustainable fishing, and illegal, unreported, and unregulated (IUU) fishing on marine biodiversity and habitats in Rome, from 23 to 25 September 2009. Serge M. Garcia, Jake Rice and Jeppe Kolding (respectively Chair, Vice-Chair and member of FEG) attended the meeting, which Dr. Garcia chaired. Dr. Garcia also tabled a discussion paper based on FAO and UNEP consultants' reports. The paper was used in the Expert Meeting to formulate conclusions on the fisheries issues under discussion. The report is being finalized by FAO and should be soon available on relevant websites. Contact [Despina Symons](#)

**What's Happening @ IUCN?****Meet IUCN's Coordinator for the Caribbean Initiative, Deirdre Shurland**

Deirdre is a senior professional with 20 years experience in environmental management and assessment, disaster preparedness, tourism sustainability and industry affairs in the Caribbean. She has developed and implemented business support tools, management solutions and training programs in environmental management systems and disaster preparedness for businesses, and networked across industry promoting sustainability through partnerships and alliances. She has 12 years experience in management consulting, 6 years experience in NGO management and operations, has served at senior management and board levels, with well developed strategic management skills. As Coordinator of the Caribbean Initiative of IUCN's Regional Office for Mesoamerica and the Caribbean Initiative (IUCN-ORMA/CI), Deirdre is responsible for building a permanent IUCN program and presence across the insular Caribbean – a region with 12 independent nations, and several British, Dutch, French and US overseas territories. Contact [Deirdre Shurland](#)

**IUCN Emerging Position paper on CBD post-2010 strategic plan - comments sought**

IUCN has prepared an 'emerging position paper' on a new Strategic Plan for the Convention on Biological Diversity's including a post 2010 biodiversity target framework. Comments and input are being sought (until 11 January 2010) and will be used to further refine IUCN's position, which will be finalized early next year. A revised version will be submitted to the Secretariat of the CBD by end of January 2010. Click [here](#) to download the emerging position paper. For more information contact [Arturo Mora](#).

**IUCN Green TV channel highlights the 2010 Year of Biodiversity**

IUCN is launching its own channel on Green TV, the world's leading online TV channel for environmental films. The IUCN channel kicks off with a series of films highlighting the Union's work and that of its Members. The channel will promote the fact that the UN has designated 2010 as the International Year of Biodiversity (IYB) and will highlight the work that IUCN will be undertaking throughout the year. [View Green TV here](#)

**IUCN Islands Coordination meeting**

IUCN's Ecosystem Management Programme convened a coordination meeting for its Islands Initiative on 20-21 November at the IUCN Mediterranean Office in Malaga, Spain. IUCN regional directors and programme staff, the GLISPA secretariat, Arthur Dahl who is the CEM Islands Thematic Group lead, discussed and developed a strategy for implementing a coordinated set of activities to address ecosystem-based adaptation on islands, globally. A project on ecosystem-based adaptation for islands is being developed. The IUCN Commissions are now challenged to develop their own response to the Islands Initiative, which could take the form of a joint Islands Thematic Group that is able to provide expertise on the issues such as the threats to island ecosystem services from climate change, the implications of rapid change for protected areas, adaptation in coastal areas faced with sea level rise, the challenges of migration of both island populations and island species and ecosystems, and risk analysis in the island context. The Islands Initiative could also benefit from strategic advice from the Commissions on its future directions. Contact [Arthur Dahl](#) or [Olivier Tyack](#) to contribute to this initiative.

**Ecosystems and human wellbeing**

In Barcelona in 2008, IUCN decided that during its current 4 year intersessional it would focus on 4 main areas, all underpinned by biodiversity conservation. CEM is involved in Thematic Programme Area 4 'Ecosystems and human wellbeing', through Gill Shepherd's membership of its Core Group. The other thematic areas can be read about on the IUCN website. The group has had preliminary discussions about what the topic should include - which range from climate change adaptation to food security – and how it will operate. It is in the process of commissioning some work from experts on both the conservation and the development side of the fence, and will have a meeting at which a programme of work will formally be launched on February 1<sup>st</sup> and 2<sup>nd</sup> 2010. Regular updates from the group, once it is fully active, will feature in the CEM newsletter. Contact [Gill Shepherd](#)

An International Conference on "Eurasian Steppes: Status, Threats and Adaptation to Climate Change" will be held from 9<sup>th</sup> to 12<sup>th</sup> of September, 2010. It will be organized by the Hustai National Park Trust and the Commission on Ecosystem Management of IUCN. For more information contact: [Marja van Staaldouin](#) or [Munkhbat Tarav](#)

2010: International Conference on 'Global Change and the World's Mountains': see [www.perth.uhi.ac.uk/mountainstudies/2010](http://www.perth.uhi.ac.uk/mountainstudies/2010)

Journal of Applied Mathematics and Statistics (IJAMS) Call for Papers: Special Issue on Probability Distributions and Frequency Analysis (PDF); Deadline for Full Paper Submission: 31 May 2010. [More](#)

Report from the 2<sup>nd</sup> meeting on establishing an Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES), held in October in Nairobi is now available from [www.iucn.org/ipbes](http://www.iucn.org/ipbes)

## Publications



IUCN 2009, *Ecosystem-based Adaptation: a natural response to climate change*

Ecosystem-based Adaptation (EbA) integrates the use of biodiversity and ecosystem services into an overall strategy to help people adapt to the adverse impacts of climate change. It includes the sustainable management, conservation and restoration of ecosystems to provide services that help people adapt to both current climate variability, and climate change. Ecosystem-based Adaptation contributes to reducing vulnerability and increasing resilience to both climate and non-climate risks and provides multiple benefits to society and the environment.

[Download](#)

The Secretariat of the Convention on Biological Diversity (CBD) and IUCN have published a Good Practice Guide on [Sustainable Forest Management: Biodiversity and Livelihoods](#). IUCN and the CBD Secretariat hope that the guide will support governments, development agencies, businesses, and non-governmental organizations in their efforts to ensure that biodiversity conservation and poverty reduction proceed concurrently, also in the context of **reducing emissions from deforestation and forest degradation (REDD)**. More information: <http://www.cbd.int/forest/>

World Resources Institute, 2009 Banking on Nature's Assets - How Multilateral Development Banks Can Strengthen Development by Using Ecosystem Services. [Click](#)

Nagabhatla Nidhi, C. Pattnaik, S Seneratna Sellamuttu, S. Narendra Prasad, R. Wickramasuriya and Max Finlayson. 2009. Investigation of Aquaculture dynamics in a Ramsar Site using Earth Observation Systems in conjunction with a Socio-economic Assessment. *Lakes & Reservoirs: Research and Management*. Wiley-Blackwell Publications. 14: pp 325–336

CEMEX, the International Union for Conservation of Nature (IUCN), Conservation International (CI), the International League of Conservation Photographers (ILCP) and The Wild Foundation launched the 17<sup>th</sup> CEMEX conservation series book at the 9th World Wilderness Congress in Mexico (WILD9) - *The Wealth of Nature -- Ecosystem Services, Biodiversity and Human Well-Being*. Cutting-edge science and striking photography are combined in a new book about ecosystem services, biodiversity and human well-being. [More](#)

## EcoTip from MyGreen IUCN!

**AFTER CHRISTMAS...**Recycle your Christmas waste; Recycle your tree! Make sure the wood chip mulch in parks and public gardens...contact your local council; Clean up using non-cards and paper scraps for children to reuse creatively as decorations next year; Take unwanted away; Save gift bags and wrapping paper for next year; Save nice glass bottles, baskets and tin or to use as containers for gifts and decorations next Christmas.



from your Christmas tree is used for toxic cleaning products; Save Christmas gifts to charity shops - don't throw them boxes to store food throughout the year